Title 194 - Department of Environmental Quality

Chapter 3 - LICENSES

<u>001</u> License Required.

<u>001.01</u> No person shall receive, possess, or dispose of low-level radioactive waste at a facility unless authorized by a license issued by the department pursuant to this Title. <u>001.02</u> A potential applicant shall notify the Governor and the Clerk of the Legislature, in writing, at least 30 days prior to any on-site geological activity, including but not limited to core sampling and the on-site geological activity locations, to determine the suitability of a site for use as a facility.

<u>001.03</u> Each person shall file an application with the department on or after October 1, 1989, and shall obtain a license before commencement of construction of a facility. Failure to obtain a license prior to commencement of construction may be grounds for denial of a license.

<u>001.04</u> An application and any amendments thereto shall be signed by the applicant or the applicant's authorized representative under oath and shall consist of 1 signed original and at least 2 copies.

<u>001.05</u> An application to receive from others, possess, and dispose of low-level radioactive wastes shall consist of general information, specific technical information, institutional information, financial information, insurance, environmental analysis, and other information as set forth in this Chapter.

002 General Information.

The general information shall include each of the following:

<u>002.01</u> Identity of the applicant including:

 $\underline{002.01A}$ The full name, address, telephone number, and description of the business or occupation of the applicant;

<u>002.01B</u> If the applicant is a partnership, the name and address of each partner and the principal location where the partnership does business; <u>002.01C</u> If the applicant is a corporation or an unincorporated association:

<u>002.01C1.</u> The state where it is incorporated or organized and the principal location where it does business, and

<u>002.01C2</u>. The names and addresses of its directors and principal officers;

002.01D If the applicant is acting as an agent or representative of another person in filing the application, all information required under 002.01 above must also be supplied with respect to the other person; and 002.01E The name of a person who becomes the legal or beneficial owner of more than fifty percent of any class of the issued and outstanding equity securities of an applicant after an application is filed and prior to issuance of the license. Such person becomes the applicant and is required to submit its environmental compliance record and

financial responsibility to the department.

<u>002.02</u> Qualifications of the applicant:

<u>002.02A</u> The organizational structure of the applicant, both offsite and onsite, including a description of lines of authority and assignments of responsibilities, whether in the form of administrative directives, contract provisions, or otherwise;

<u>002.02B</u> The technical qualifications, including training and experience, of the applicant and members of the applicant's staff to engage in the proposed activities. Minimum training and experience requirements for personnel filling key positions described in <u>002.02A</u> above must be provided.

<u>002.02C</u> A description of the applicant's personnel training program; and <u>002.02D</u> The plan to maintain an adequate complement of trained personnel to carry out waste receipt, handling, and disposal operations in a safe manner.

002.03 A description of:

<u>002.03A</u> The location of the proposed disposal site;

<u>002.03B</u> The general character of the proposed activities;

<u>002.03C</u> The types, quantities and activities of waste to be received, possessed, and disposed of;

<u>002.03D</u> Plans for use of the facility for purposes other than disposal of wastes; and

<u>002.03E</u> The proposed facility and equipment.

<u>002.04</u> Proposed schedules for construction, receipt of waste, and first emplacement of waste at the proposed facility.

<u>003</u> Specific technical information.

The specific technical information shall include the following information needed for demonstration that the performance objectives and technical requirements of this Title will be met:

<u>003.01</u> A description of the natural and demographic features of disposal site characteristics as determined by disposal site selection and characterization activities. The description shall include geologic, geochemical, geotechnical, hydrologic, ecologic, archaeologic, meteorologic, climatologic, biotic features of the disposal site and vicinity, and present and projected population distribution and land use.

<u>003.02</u> A description of the design features of the facility and the disposal units. The description shall include those design features related to: infiltration of water; integrity of covers for disposal units; structural stability of backfill, wastes, and covers; contact of wastes with standing water; disposal site drainage; disposal site closure and stabilization; elimination to the extent practicable of long-term disposal site maintenance; inadvertent intrusion; occupational exposures; disposal site monitoring; and adequacy of the size of the buffer zone for monitoring and potential mitigative measures, including retrievability and removal of waste.

<u>003.03</u> A description of the principal design criteria and their relationship to the performance objectives.

003.04 A description of the design basis natural events or phenomena and their relationship

to the principal design criteria.

<u>003.05</u> A description of codes and standards which the applicant has applied to the design and which will apply to construction of the facility.

<u>003.06</u> A description of the construction and operation of the facility. The description shall include as a minimum the methods of construction of disposal units; waste emplacement; the procedures for and areas of waste segregation; types of intruder barriers; onsite traffic and drainage systems; survey control program; methods and areas of waste storage; and methods to control surface water and groundwater access to the wastes. The description shall also include a description of the methods to be employed in the handling and disposal of wastes containing chelating agents or other non-radiological substances that might affect meeting the performance objectives in Chapter 4.

<u>003.07</u> A description of the disposal site closure plan, including those design features which are intended to facilitate disposal site closure and to eliminate the need for ongoing active maintenance.

<u>003.08</u> An identification of the known natural resources at the disposal site whose exploitation could result in inadvertent intrusion into the wastes after removal of active institutional control.

<u>003.09</u> A description of the kind, amount, classification, activity and specifications of the waste proposed to be received, possessed, and disposed of at the facility.

<u>003.10</u> A description of the quality assurance program, as approved by the department, for the determination of natural disposal site characteristics and for quality assurance during the design, construction, operation, and closure of the facility and the receipt, handling, and emplacement of waste. Audits and managerial controls must be included.

<u>003.11</u> A description of the radiation safety program for control and monitoring of radioactive effluents to ensure compliance with the performance objective in Chapter 4, <u>002</u> and occupational radiation exposure to ensure compliance with the requirements of Standards for Protection Against Radiation specified in Title 180 and to control contamination of personnel, vehicles, equipment, buildings, and the disposal site. Both routine operations and accidents shall be addressed. The program description shall include procedures, instrumentation, facilities, and equipment.

<u>003.12</u> A description of the continuous environmental monitoring program to detect any releases of radiation from the disposal facility and having the capability of providing early warning of such release and to provide data to evaluate potential health and environmental impacts and the plan for recovery, cleanup, or other corrective measures necessary as a result of a release.

<u>003.13</u> A description of the administrative procedures that the applicant will apply to control activities at the facility.

003.14 A description of the fire prevention and emergency response program at the facility.

004 Technical analyses.

The specific technical information shall also include the following analyses needed to demonstrate that the performance objectives of this Title will be met. The analyses shall be consistent with a zero-release objective.

<u>004.01</u> Pathways analyzed in demonstrating protection of the general population and environment from releases of radioactivity shall include air, soil, ground water, surface water, plant uptake, and exhumation by burrowing animals. The analyses shall clearly identify and differentiate between the roles performed by the natural disposal site characteristics and design features in isolating and segregating the wastes. The analyses

shall clearly demonstrate that there is reasonable assurance that the exposures to humans from the release of radioactivity will not exceed the limits set forth in Chapter 4, <u>002</u>. <u>004.02</u> Analyses of the protection of individuals from inadvertent intrusion shall include demonstration that there is reasonable assurance the waste classification and segregation requirements will be met and that adequate barriers to inadvertent intrusion will be provided.

<u>004.03</u> Analyses of the protection of individuals during operations shall include assessments of expected exposures due to routine operations and likely accidents during handling, storage, and disposal of waste. The analyses shall provide reasonable assurance that exposures will be controlled to meet the requirements of Standards for Protection Against Radiation specified in Title 180.

<u>004.04</u> Analyses of the long-term stability of the disposal site and the need for ongoing active maintenance after closure shall be based upon analyses of active natural processes such as erosion, mass wasting, slope failure, settlement of wastes and backfill, infiltration through covers over disposal units and adjacent soils, and surface drainage of the disposal site. The analyses shall provide reasonable assurance that there will not be a need for ongoing active maintenance of the disposal site following closure.

005 Institutional information.

The institutional information submitted by the applicant shall include:

<u>005.01</u> A certification by the Federal government or State of Nebraska whichever owns the disposal site that the Federal government or State of Nebraska is prepared to accept transfer of the license when the provisions of <u>016</u> of this Chapter are met and the Federal government or the institutional control agency will assume responsibility for institutional care after site closure and post-closure observation and maintenance. <u>005.02</u> Where the proposed disposal site is on land not owned by the Federal or State government, the applicant shall submit evidence that arrangements have been made for assumption of ownership in fee by the Federal government or State of Nebraska before the department issues a license.

006 Financial information.

The financial information shall be sufficient to demonstrate that the financial qualifications of the applicant are adequate to carry out the activities for which the license is sought, including the funding arrangements for custodial care, and shall comply with Chapter 6.

<u>007</u> Environmental analysis.

The environmental analysis information specified in Chapter 10, shall be included in the application.

008 Additional information.

Additional information may be requested by the department depending upon the nature of the wastes to be disposed of and the design and proposed operation of the facility.

<u>009</u> Requirements for issuance of a license.

A license for the receipt, possession, and disposal of waste shall be issued by the department upon

finding that:

<u>009.01</u> The application is complete;

<u>009.02</u> The issuance of the license will not constitute an unreasonable risk to the public health and safety and the environment;

<u>009.03</u> The applicant is qualified by reason of training and experience to carry out the disposal operations requested in a manner that protects health and minimizes danger to life, property and the environment;

<u>009.04</u> The applicant's proposed disposal site, disposal design, facility operations including equipment, facilities and procedures, disposal site closure and post-closure institutional control shall be consistent with a zero-release objective and shall protect the public health and safety in that they provide reasonable assurance that the general population will be protected from releases of radioactivity as specified in Chapter 4, Section <u>002</u>; <u>009.05</u> The applicant's proposed disposal site, disposal site design, facility operations including equipment, facilities and procedures, disposal site closure and post-closure institutional control will protect the public health and safety in that they will provide reasonable assurance that individual inadvertent intruders are protected in accordance with Chapter 4, Section <u>003</u>;

<u>009.06</u> The applicant's proposed facility operations, including equipment, facilities and procedures, will protect the public health and safety in that they will provide reasonable assurance that the Standards for Protection Against Radiation specified in Title 180 are met; <u>009.07</u> The applicant's proposed disposal site, disposal site design, facility operations, disposal site closure and post-closure institutional control will protect the public health and safety in that they will provide reasonable assurance that long-term stability of the disposed waste and the disposal site will be achieved and will eliminate to the extent practicable the need for on-going active maintenance of the disposal site following site closure;

<u>009.08</u> The applicant's demonstration provides reasonable assurance that the applicable technical requirements of Chapter 5 will be met;

<u>009.09</u> The applicant's proposal for institutional control provides reasonable assurance that such control will be provided for the length of time necessary to ensure the findings in <u>009.04</u> through <u>009.07</u> of this Chapter and that the institutional control meets the requirements of Chapter 5, <u>009</u>.

<u>009.10</u> The financial or surety and insurance arrangements of the applicant's proposal meet with the requirements of Chapter 6;

<u>009.11</u> The information submitted and obtained in <u>002.01E</u> of this Chapter has been reviewed by the department, and the department finds that such person can adequately comply with the provisions of the application and applicable laws, rules, and regulations; <u>009.12</u> Any additional information submitted, as requested by the department, is adequate.

010 License Conditions.

<u>010.01</u> The licensee shall immediately notify the department, in writing, of the identity of a person who becomes legal or beneficial owner of more than fifty percent of any class of its issued and outstanding equity securities. Such person shall submit its environmental compliance record and financial responsibility to the department within thirty days from the date of change in ownership.

<u>010.02</u> The license issued under this Title may not be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through

transfer of control of the license to any person, unless the department finds, after obtaining full information that the transfer is in accordance with the provisions of this Title and the Act and gives its consent in writing in the form of a license amendment.

<u>010.03</u> The licensee shall submit written statements under oath upon request of the department, at any time before termination of the license, to enable the department to determine whether the license should be modified, suspended or revoked.

<u>010.04</u> The license will be transferred as specified in 016 below only on the full implementation of the final closure plan as approved by the department, including post-closure observation and maintenance.

<u>010.05</u> The licensee shall be subject to the provisions of this Title and the Act including amendments, and all other relevant rules and regulations of the department and orders of the director. The terms and conditions of the license shall be amended, revised, or modified if the laws, rules and regulations are amended or orders are issued pursuant to the Act. Licensees shall be reviewed every five years after issuance.

<u>010.06</u> Any license may be revoked, suspended or modified in whole or in part for any material false statement in the application, or because of conditions revealed by any application or statement of fact or any report, record, or inspection or other means which would warrant the department to refuse to grant a license, or for failure to operate the facility in accordance with the terms and conditions of the license, or for any violation of the Act, or any applicable rule, regulation, or order of the director. Revocation or suspension of the license shall not relieve the licensee of responsibility under the Act.

<u>010.06A</u> A licensee may request the director, in writing, for a hearing within 30 days after receipt of notice of license revocation, suspension or modification. Such hearing shall be held within 30 days after receipt of the request.

<u>010.07</u> The licensee shall confine possession and use of materials to the locations and purposes authorized in the license.

<u>010.08</u> The licensee shall not dispose of waste until the department has inspected the facility and has found it to be in conformance with the description, design and construction described in the license application.

<u>010.09</u> The licensee shall not store or dispose of waste produced as a result of decommissioning a nuclear reactor until the department finds that such facility is designed to safely store or dispose of such waste and gives its approval. <u>010.10</u> Noncomplying generators.

<u>010.10A</u> The licensee shall not accept waste from a generator of low-level radioactive waste if the licensee receives written notice, or oral notice followed by written notice, from the director that such generator has failed to fulfill its financial or regulatory responsibilities pursuant to Section 81-15,113.02 of the Act.

<u>010.10B</u> The ban shall be removed after the licensee receives written notice from the director that such generator has fulfilled its obligations.

010.11 Emergency access.

<u>010.11A</u> Unless an emergency exists, the licensee shall not accept waste from outside the Compact region without prior approval by the Nebraska Legislature. Emergency, as used in this section, means disposal facility access which may be granted by the U.S. Nuclear Regulatory Commission, that upon a determination that such access is necessary to eliminate an immediate and serious threat to the public health and safety or the common defense and security which cannot be mitigated

consistent with the public health and safety by any alternative, including storage of low-level radioactive waste at the site of generation or in a storage facility obtaining access to a disposal facility by voluntary agreement, purchasing disposal capacity available for assignment pursuant to section 5(c), Public Law 99-240, January 1986, or ceasing activities that generate low-level radioactive waste.

<u>010.11B</u> The licensee shall not accept waste beyond the period noticed in <u>010.11A</u> above, which period cannot exceed six months, unless the Legislature agrees to continue such emergency access.

<u>010.12</u> Emergency response.

<u>010.12A</u> The licensee or its contractor shall provide training programs to the appropriate local political subdivision of the first responding fire, police, and ambulance services to handle emergency events at the facility and support for affected county emergency management planning, training, and central dispatch facilities as may be required to handle such emergencies. The content of any such training program shall, prior to the commencement of the training program, be approved by the appropriate State agency which is responsible for such emergency training activity. <u>010.12B</u> The licensee shall also provide to the appropriate local political subdivision any equipment which is necessary to provide emergency response due to the location and operation of the facility.

<u>010.13</u> The department may incorporate into any license at the time of issuance or thereafter, by appropriate rule or regulation or order of the director, any additional requirements and conditions with respect to the licensee's receipt, possession, and disposal of waste as it deems appropriate or necessary to:

<u>010.13A</u> Protect health or to minimize danger to life, property, and the environment;

<u>010.13B</u> Require reports and the keeping of records, and to provide for inspections of activities under the license that may be necessary to effectuate the purposes of this Title;

<u>010.13C</u> Be consistent with the zero-release objective.

<u>010.14</u> The authority to dispose of wastes expires on the date stated in the license which date shall not exceed a period longer than thirty years or until five million cubic feet of low-level radioactive waste has been received, whichever occurs first. Such expiration applies only to the above ground activities and to the authority to dispose of waste. <u>010.15</u> Bankruptcy.

<u>010.15A</u> The licensee shall notify the director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any Chapter of Title 11 of the U.S. Code by or against:

<u>010.15A1.</u> The licensee; <u>010.15A2.</u> An entity, as defined in 11 U.S.C. 101(14), controlling the licensee or listing the license or licensee as property of the estate; or <u>010.15A3.</u> An affiliate, as defined in 11 U.S.C. 101 (2), of the licensee.

<u>010.15B</u> The notification shall include the bankruptcy court in which the petition for bankruptcy was filed and the date of the filing of the petition.

<u>011.01</u> Except as provided for in specific license conditions, the licensee shall not make changes in the facility or procedures described in the license application. The license shall include conditions restricting subsequent changes to the facility and the procedures authorized which are important to public health and safety. These license restrictions shall include three categories of descending importance to public health and safety as follows:

<u>011.01A</u> Those features and procedures which may not be changed without:

<u>011.01A1.</u> 60 days prior notice to the department; <u>011.01A2.</u> 30 days notice of opportunity for a public hearing in the county in which the facility is located; and

001.01A3. Prior department approval;

<u>011.01B</u> Those features and procedures which may not be changed without:

<u>011.01B1.</u> 60 days prior notice to the department; and <u>011.01B2.</u> Prior department approval;

<u>011.01C</u> Those features and procedures which may not be changed without 60 days prior notice to the department. Features and procedures falling in <u>011</u> shall not be changed without prior department approval.

<u>011.02</u> Amendments authorizing site closure, license transfer, or license termination shall be included in <u>011.01A</u> above.

<u>011.03</u> The department shall provide a copy of the notice for opportunity for hearing provided in <u>011.01A</u> above to appropriate State and local officials, and shall notice the activity in the newspaper nearest to the facility and in a daily newspaper with circulation in the municipality nearest to the facility.

012 Amendment of license.

<u>012.01</u> An application for amendment of a license shall be filed in accordance with <u>001</u> above and shall fully describe the changes desired.

<u>012.02</u> Supplements or revisions to the information specified in <u>007</u> in this Chapter shall be submitted if required by the department.

<u>012.03</u> In determining whether an amendment to a license will be approved, the department will apply the criteria in <u>009</u> above.

<u>013</u> Expiration of License and Application for Closure.

<u>013.01</u> An expiration date on a license applies only to the authority to dispose of waste. Failure to file an application for closure shall not relieve the licensee of responsibility for site closure, post-closure observation and transfer of the license to the site owner. <u>013.02</u> An application for closure under <u>014</u> must be filed at least 90 days prior to license expiration.

<u>013.03</u> Applications for closure shall be filed in accordance with <u>002</u> above and <u>014</u> below. Information contained in previous applications, statements, or reports filed with the department may be incorporated by reference if the references are clear and specific.

<u>014.01</u> Prior to license expiration and final closure of the disposal site, or as otherwise directed by the department, the applicant shall submit an application to amend the license for closure. This closure application shall include a final revision and specific details of the disposal site closure plan included as part of the license application submitted in <u>003.07</u> above that includes each of the following:

<u>014.01A</u> Any additional geologic, hydrologic, or other data pertinent to the long-term containment of emplaced wastes obtained during the operational period.

<u>014.01B</u> The results of tests, experiments, or other analyses relating to backfill of excavated areas, closure and sealing, waste migration and interaction with emplacement media, or any other tests, experiments, or analysis pertinent to the long-term containment of emplaced waste within the disposal site.

<u>014.01C</u> Any proposed revision of plans for:

<u>014.01C1.</u> Decontamination and/or dismantlement of surface facilities:

<u>014.01C2.</u> Backfilling of excavated areas; or <u>014.01C3.</u> Stabilization of the disposal site for post-closure care.

<u>014.01D</u> Any new information regarding the environmental impact of closure activities and long-term performance of the disposal site.

<u>014.02</u> Upon review and consideration of an application to amend the license for closure submitted in accordance with <u>014.01</u> above, the department shall issue an amendment authorizing closure if there is reasonable assurance that the long-term performance objectives of Chapter 4 will be met.

015 Post-closure observation and maintenance.

Following completion of closure authorized in <u>014</u> above, the licensee shall observe, monitor, and carry out necessary maintenance and repairs at the disposal site until the license is transferred by the department in accordance with <u>016</u> below. Responsibility for the disposal site must be maintained by the licensee for five years. A shorter or longer time period for post-closure observation and maintenance may be established and approved as part of the site closure plan, based on site-specific conditions.

<u>016</u> Transfer of license.

<u>016.01</u> Following closure and the period of post-closure observation and maintenance, the licensee may apply for an amendment to transfer the license to the disposal site owner. The license shall be transferred when the department finds:

<u>016.01A</u> The closure of the disposal site has been made in conformance with the licensee's disposal site closure plan, as amended and approved as part of the license;

<u>016.01B</u> Reasonable assurance has been provided by the licensee that the performance objectives of Chapter 4 are met;

<u>016.01C</u> Any funds and necessary records for custodial care will be transferred to the disposal site owner;

<u>016.01D</u> The post-closure monitoring program is operational for implementation by the disposal site owner; and <u>016.01E</u> The institutional control agency is prepared to assume responsibility for institutional control of the disposal site and ensure that the institutional requirements found necessary under <u>009</u> will be met.

<u>017</u> Termination of license.

<u>017.01</u> Following any period of institutional control needed to meet the requirements of <u>009</u> above, the licensee may apply for an amendment to terminate the license.

<u>017.02</u> This application will be reviewed in accordance with the provisions of this Title and the Act.

<u>017.03</u> A license shall be terminated only when the department finds:

<u>017.03A</u> The institutional control requirements found necessary in <u>009</u> above have been met;

<u>017.03B</u> Any additional requirements resulting from new information developed during the institutional control period have been met; <u>017.03C</u> Permanent monuments or markers warning against intrusion have been installed and

<u>017.03D</u> That exclusive use of the lands and appurtenances for disposal of low-level radioactive waste is no longer required to protect the public health, safety, welfare or environment.

Enabling Legislation: Neb. Rev. Stat. §§81-1599; 81-1599.01 81-15,100; 81-15,101.01; 81-15,101.02 81-15,101.03; 81-15,102; 81-15,102.03; 81-15,106(1) 81-15,106(3) and 81-15,113.02

Legal Citation Title 194, Ch. 3, Nebraska Department of Environmental Quality

For more information, contact MoreInfo@NDEO.state.NE.US

Nebraska Department of Environmental Quality 1200 "N" Street, Suite 400 PO Box 98922 Lincoln, NE 68509 (402)471-2186 fax: (402)471-2909